DOCUMENT RESUME

ED 148 676 SO 010 557

AUTHOR Wulff, Kenneth R.
TITLE A Comparison of Taba's Social Studies Inference and Application of Principles Tests among Urban, Suburban and Rural Students.
PUB DATE 25 Nov 77
NOTE 34p.; Paper presented at Annual Meeting of the National Council for the Social Studies (Cincinnati, Ohio, November 23-26, 1977); For a related document, see ED 141 195

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Critical Thinking; Educational Methods; Educational Research; Elementary Education; *Inquiry Training; Literature Reviews; Problem Solving; Rural Youth; *Social Studies; Student Ability; Suburban Youth; Urban Youth
IDENTIFIERS Taba (Hilda)

ABSTRACT

This study compares the abilities of urban, suburban, and rural students to think critically in the social studies. The specific purpose was to determine if differences existed among the three categories of elementary students. Eight hundred and twenty five 4th, 5th, and 6th grade students from urban, suburban, and rural schools in Washington D. C. and Ohio were tested. The students were administered modified versions of Taba's "Social Studies Inference Test," designed to measure several aspects of the processes involved in drawing inferences from data which are unfamiliar to students, and Taba's "Application of Principles Test," designed to measure the student's ability to generalize. Results of the study illustrate that differences do exist among urban, suburban, and rural students in their ability to think critically in the social studies. Findings suggest that rural students possess greater skills in critical thinking ability than urban and suburban students. It is suggested that further studies need to be conducted to clarify the relative worth of inquiry teaching methods. (Author/JK)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED148676

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Kenneth R. Wulff

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

A COMPARISON OF TABA'S SOCIAL STUDIES INFERENCE AND APPLICATION OF PRINCIPLES TESTS AMONG URBAN, SUBURBAN AND RURAL STUDENTS

by

Kenneth R. Wulff
Kent State University

SP 010 557

A paper presented at the College and University Faculty Assembly of the National Council for the Social Studies, 57th. Annual Meeting, Cincinnati, Ohio, November 25, 1977

A COMPARISON OF TABA'S SOCIAL STUDIES INFERENCE AND APPLICATION OF PRINCIPLES TESTS AMONG URBAN, SUBURBAN AND RURAL STUDENTS

Inquiry is currently riding on a high crest in social studies education. This is partially explained by the reintroduction of the concept by social studies educators in the late 1950's and 1960's. Critical thinking, one aspect of inquiry, has also been of concern to many researchers and authors. Critical thinking involves many elements two of which are the ability to draw inferences and make generalizations.

The following is a report of the procedures and findings of a study designed to investigate a comparison of urban, suburban and rural students pursuant to their ability to think critically in the social studies. The specific purpose was to determine if differences existed among the urban, suburban and rural students as measured by Taba's Social Studies Inference and Application of Principles Test.

Review of the Literature

Many authors in the areas of psychology, education and particularly in the social studies, have concerned themselves with the importance of critical thinking.

Eulie has pointed out that man is unique in his power to conduct himself rationally. He further stated that not only is the ability to think man's supreme asset, but the vehicle through which the school can reach him. A conscious effort should be made to develop critical thinking in students be-

cause it is the best preparation schools could give students to help them take places in our adult democratic society.[1]

Starr, another author, has written that as the American society has grown more complex, it is more imperative than ever before that citizens be able to think as clearly as possible.

> Today, the development of critical thinking is recognized as a major goal of American education. . . A primary objective of the social studies is to help people think critically about conditions and problems, both personal and social.[2]

Taba has also written that independent thinking has long been among the main objectives of the curriculum. She felt the main business of educators is to teach students to think. However, a variety of factors have prevented social studies teachers from developing programs capable of helping students become autonomous, creative and productive thinkers.

One factor has been the difficulty in arriving at a concise definition of inquiry. Marsh[3] stated that despite such confusion, a great number of nationally funded social studies projects, papers and monographs have been written in support of inquiry as a teaching strategy. He further stated all of this has occurred without substantial research evidence to indicate that inquiry is any more successful as a teaching method than other traditional forms. Indeed, the research evidence is fragmentary and inconclusive.

---

[1]Joseph Eulie, "Developing Critical Thinking and Understanding Through the Social Studies," The Social Studies, LIX (October, 1968), 216.

[2]Isidore Starr, "The Nature of Critical Thinking and Its Application in the Social Studies," Skill Development in Social Studies, 33rd. Yearbook of the National Council for the Social Studies, (Washington, D.C.: National Council for the Social Studies, 1963), 35.

[3]Colin J. Marsh, "Inquiry Teaching in Social Studies and the Social Sciences," The Australian Journal of Education, Volume 19, Number 3, (1975), 276.

A second factor has been the acceptance of several questionable assumptions about how thought processes are learned. One of the most widely accepted assumptions is that thinking cannot take place until a sufficient body of factual knowledge has been accumulated "to think with."

Many other authors have discussed both the importance of critical thinking as a major educational objective and the contributions of critical thinking to effective citizenship.

Some studies have indicated that critical thinking ability or abilities may be relatively independent of general intelligence and school achievement factors. Glaser found that the correlation between the composite scores on the Watson-Glaser Test of Critical Thinking and the Otis Intelligence Test was .46. The two factors most clearly related to scores on the critical thinking test were found to be intelligence (.48) and reading ability (.36).[4]

However, other investigators have obtained smaller coefficients of correlation between critical thinking and intelligence. Edwards found a correlation range from .00 to .17. In a similar study, Buck and Ojemann found a correlation of only .31 between scores on tests of general thinking ability and tests of critical thinking ability in practical situations for a small group of adolescents.[5]

Over the past years, a considerable amount of research has been accomplished in the area of the intellect and in particular how people think (critically). Guilford, Piaget and Bruner have all addressed the question. Perhaps the best known and most widely used sequence of steps in reflective thinking comes from

---

[4]David H. Russell, Children's Thinking (Boston: Ginn and Company, 1956), 292.

[5]Ibid.

Dewey. He recognized five aspects: (1) recognition of the problem; (2) analysis of the problem; (3) suggestion of possible solutions; (4) testing of consequences; and (5) judgment of the selected solution.[6]

The amount of research devoted to critical thinking in the social studies is quite extensive in nature. Similarly, many suggestions have been made for developing critical thinking through social studies materials.

Rothstein experimented over a thirty-five week period in the development of critical thinking skills through the teaching of American History. Two groups were matched on the basis of general intelligence, reading achievement and critical thinking skill. The control group was taught with an emphasis upon subject matter and the experimental group was taught with an emphasis upon the development of critical thinking skills. The thinking skills emphasized were: (1) comparing sources of data; (2) interpreting data; (3) identifying strong and weak arguments; (4) evaluating thinking as to its relative criticalness or dogmatism; (5) developing sensitivity to language and meaning; and (6) drawing conclusions from evidence. The results showed the experimental group gained significantly in critical thinking skills and acquired the same amount of content information as did the control group in which subject-matter acquisition was emphasized. No significant correlation was found between information retained and critical thinking siills.[7]

Four studies in inquiry were conducted in conjunction with Indiana University which compared the effects of a traditional didactic approach to instruction with those of a reflective or problem-solving approach on the

---

[6]John Dewey, How We Think (New York: D. C. Heath, 1933).

[7]Arnold Rothstein, "An Experiment in Developing Critical Thinking Through the Teaching of American History," (unpublished Doctoral dissertation, New York University, 1960).

variables of knowledge acquisition and critical thinking. These studies embodied many of the characteristics of the Rothstein study previously cited.

Taba identified learnable and teachable aspects of thinking. One study identified three cognitive tasks: (1) concept formation, or the organization of an aggregate of information into a system of groups and classes; (2) interpretation of data, inferring and generalizing; and (3) application of principles, known concepts, generalizations and data for hypothesizing or constructing a theory. The Application of Principles and Social Studies Inference Tests were developed during this study.[8]

Taba's Social Studies Inference Test served as the criterion measure of critical thinking in a study by Hunkins. The purpose of the study was to determine whether a dominant use in social studies text materials of analysis and evaluation questions, as defined by Bloom's Taxonomy, would effectively stimulate the development of critical thinking in students of sixth-grade social studies and to learn if the emphasis on these questions would improve the social studies achievement of these students. Two hundred sixty students were assigned to condition A (emphasis on analysis and evaluation questions) or to condition B (dominant emphasis on knowledge questions). From the data, it was concluded that students did not differ significantly in critical thinking. However, students receiving the high level questions demonstrated significantly higher scores in social studies achievement than did students receiving low level questions. Reading level exerted a significant influence upon the level of achievement for students in both conditions.[9]

This study was the only reported use of Taba's tests.

---

[8]Hilda Taba, Samuel Levine and Freeman Elzey, Thinking in Elementary Children, Cooperative Research Project No. 1574 (San Francisco State College: United States Office of Education, 1964).

[9]C. Benjamin Cox, William D. Johnson and Roland F. Payethe, "Review of Research in Social Studies: 1967," Social Education, XXXII (October, 1968), 565-566.

Marsh, reported on research findings in inquiry teaching during 1967-1972, noted the following problems: (1) Some of the researchers did not adequately explicate the type of inquiry teaching they were attempting to evaluate. Since 1970, researchers have been more aware of this problem and have tended to delimit their independent inquiry variables in order to avoid attempting to cover the whole area of inquiry; (2) Despite the attempts to enumerate specific inquiry variables, researchers have been hampered by a lack of suitable evaluation instruments. The Watson-Glaser Critical Thinking Appraisal is widely used although evaluation of verbal responses through interaction analysis ratings and indirect measurers of affective states via the semantic differential technique have been utilized by researchers. Recent studies have not focused as much on demonstrating the advantages of inquiry in terms of pupil's factual achievements as they have focused on inquiry development in pupils by observation, verbal responses, written tests, direct (questionnaires) or indirect (semantic differential); (3) Difficulty in establishing initial comparability between groups. Most studies have used a combination of intelligence quotient, chronological age and sex in equating their groups. A few studies have considered affective domain comparability; (4) Comparability of tasks and materials used with the experimental and control groups has not been explicitly considered by researchers. Usually novel tasks have been selected for use by the experimental group and Marsh stated one can only assume the control group used equally novel materials; (5) Comparability of instructors is often overlooked; and (6) Limitations of insufficient research rigor in experimental design must be considered when examining results. Problems in extensive experimental studies over long periods of time with samples of substantial size seem to be the main problems. Marsh concluded that substantial, comprehensive research programs are needed to elucidate

the relative worth of inquiry teaching procedures.[10]

Purpose of the Study

Previous research projects have been conducted by Wulff (See Dissertation Abstracts 4702-A, Education, 1970 and Resources in Education, November, 1977, ED 141 195) concerning critical thinking in the social studies. As a result of previous research, the purpose of this study was to investigate if differences existed among urban, suburban and rural students concerning their ability to think critically in social studies as measured by Taba's Social Studies Inference Test and Application of Principles Test as modified by Wulff.

Procedures

Subjects:

Eight hundred and twenty five students in grades four, five and six located in urban, suburban and rural environments were used in this study. Students were from public elementary and religious elementary schools located in Washington, D.C. and Ohio. School districts represented in this study included three large metropolitan urban school districts (one district multilingual), three suburban and three rural school districts.

Test Instruments:

The Social Studies Inference Test was designed to measure several aspects of the processes involved in drawing inferences from data which are unfamiliar to students. Scores are yielded on the following: (1) the ability to discriminate between various items given in the problem; (2) the ability to draw inferences; (3) the ability to recognize the limits of the data and not overgeneralize or be overcautions; (4) the tendency to make errors which

[10] Marsh, op. cit.

represent contradictions to information provided or suggested by the data. The student was provided with a story describing a situation in which certain behaviors or events are interrelated. Following the story, a number of alternative inferences are presented, from which the student was to select valid inferences if he/she knew or understood the basic generalizations. The test provided an indirect test of the individual's ability to generalize. The pre- and posttest odd-even correlation coefficients ranged from .45 to .69. Taba reported that an effort was made to secure more breadth in the situations and therefore the 1966 form of the test was less internally consistent than the 1964 form. The stability coefficients ranged from .21 to .51. Taba felt the low coefficients could be explained from the following points: (1) considerable shifting within the groups may have occurred because of influences of the curriculum or; (2) considerable shifting within the groups may have been caused by the relatively high error of measurement of the tests.

The Application of Principles Test was designed to measure the student's ability to generalize. In this test, the student was given a situation in the form of a short paragraph containing data relevant to social studies. Applying a generalization in this instance was tantamount to selecting the generalization which best explained the occurrences or events in the situation. After each situation, the student was presented with four generalizations. These generalizations have been written so that each situation has a correct generalization at a high order of abstraction, a correct generalization at a low order of abstraction, a correct generalization that was irrelevant to the situation and a relevant but incorrect generalization. The student was then asked to select two generalizations that he/she thought best explained the events in the situation. The score obtained was a generalization score based on the number and

order of correct generalizations selected. The pre- and posttest odd-even correlation coefficients ranged from .60 to .73. The stability coefficients ranged from .43 to .54.

The presenter has utilized Taba's tests with 300 sixth grade students. (See Dissertation Abstracts 4702-A Education, 1970. Also see "Cognitive Development in Disadvantaged Students," The Journal of Educational Research, Volume 67, Number 7, March, 1964).

Procedures:

During late 1976 and 1977, all subjects were administered the two test instruments. All test material was read aloud to the students and answer sheets were completed and scored by using Taba's original scoring format.

Results:

APPLICATION OF PRINCIPLES TEST
MEANS AND STANDARD DEVIATIONS

VARIABLE	TOTAL X	S.D.	URBAN X	S.D.	SUBURBAN X	S.D.	RURAL X	S.D.
Higher Order Generalization	7.20	2.37	7.04	2.40	7.32	2.35	7.58	2.25
Lower Order Generalization	5.63	2.08	5.40	1.99	5.88	2.11	5.96	2.18
Irrelevant Generalization	7.51	2.39	7.90	2.40	7.08	2.36	6.88	1.97
Error	7.52	2.62	7.77	2.62	7.31	2.55	7.04	2.71

Higher Order Generalization: The rural students in this sample were better able to choose the higher order generalization followed by surburban students and then urban students.

Lower Order Generalization: The pattern in selecting the lower order generalization is the same as reported above: rural students, suburban students and urban students.

Irrelevant Generalization: The rankings are reversed in this category with the urban students securing the highest mean, followed by rural students. Suburban students had the lowest mean.

Error: Urban students committed the highest number of errors (7.77) followed by suburban students (7.31) and rural students had the lowest mean, 7.04.

The results of this study suggest rural students, in this sample, are better able to select the highest and lowest order generalizations and to select irrelevant generalizations and make errors less often than urban and suburban students. Conversly, suburban and urban students did not perform in this area of critical thinking as well as one might expect.

SOCIAL STUDIES INFERENCE TEST
MEANS AND STANDARD DEVIATIONS

VARIABLE	URBAN		SUBURBAN		RURAL	
	X	S.D.	X	S.D.	X	S.D.
Overcaution	13.46	4.42	13.49	4.16	15.33	5.11
Discrimination	7.05	2.56	7.74	2.53	5.78	1.89
Inference	15.57	3.81	16.10	4.01	14.87	3.77
Overgeneralization	6.13	2.68	5.62	2.78	5.67	2.76
Accurate	8.86	3.09	9.45	3.61	8.89	3.02
Error	17.07	5.59	16.14	6.40	18.29	5.52

Overcaution: Rural students, in this sample, exhibited the highest mean (15.33) followed by suburban (13.49) and urban (13.46). These results are surprising as one usually expects urban students to be very cautious in interpreting data.

Discrimination: Rural students have the highest mean (5.78) in this category. Urban students have the lowest (7.05) with suburban students between.

Inference: Rural students are better able to draw correct inferences than are urban and suburban students. It is interesting to speculate why suburban students have the poorest showing in drawing inferences.

Overgeneralization: Urban students had the highest mean (6.13) and therefore tended to push the data beyond its limits. Suburban students fared better with a mean of 5.62. Rural students were between urban and suburban students in this measure.

Accurate: Suburban students appeared to be most accurate, followed by rural and then urban students.

Error: In this study, rural students had the highest mean (18.29) in error score. Urban students were next in committing errors with suburban students ranking lowest in errors.

Needed Research

The purpose of this study was to compare urban, suburban and rural students pursuant to their ability to think critically in the social studies. The specific purpose was to determine if differences existed among the three categories of students.

The results of this study did illustrate that differences do exist among urban, suburban and rural students in their ability to think critically in the social studies. Rural students appeared to possess greater skills in critical thinking ability than previously suspected. This factor, in turn, raises many

questions.

Therefore, as a result of the review of research in inquiry teaching and the results of this study, it appears quite appropriate to suggest the following: (1) An experimental study to examine the relationship of Inference and Application of Principles (two areas of inquiry) as measured on Taba's Social Studies Inference Test and Application of Principles Test between the experimental group, receiving the treatment and the control group. Intervening variables to consider are as follows: age, sex, available I.Q. scores and various affective areas. The following hypothesis will be tested: There will be a difference between the experimental group and the control group on the dependent variables, favoring the experimental group.

This position would be supported by Marsh when he stated:

> It is quite clear that substantial, comprehensive research programs are needed to elucidate the relative worth of inquiry teaching procedures. It is equally clear .... that the present range of fragmented studies, largely carried out by doctoral students, cannot hope to provide any real solution to the problem.[11]

Therefore, this study will provide substantial research intended to support the superiority of inquiry teaching.

---

[11]Marsh, op. cit., 281.

SOCIAL STUDIES INFERENCE TEST

Developed by Hilda Taba - 1966
Modified by Kenneth Wulff - 1976

Explanation to students:

This booklet has some stories. After each story there are some sentences about the story. First, I will read the story out loud to you and you can follow along in your booklet. Then I will read each of the sentences and you are to decide whether the sentence is probably true, probably false, or if you can't tell whether it is probably true or false.

Decide on an answer for each sentence that I read to you. Mark your answer with a heavy black mark. If you think the answer is probably true, mark in the space under "A". If you think the answer is probably false, mark in the space marked "B". If you can't tell from the story whether the sentence is probably true or probably false, mark in the space under "C".

For some of the sentences "probably true" may be the correct answer.
For some of the sentences "probably false" may be the correct answer.
For some of the sentences "can't tell" may be the correct answer.

Example:

Mr. Jones was a farmer in the midwest. When he heard about the discovery of gold in California, he left his family and went to California.

1. Mr. Jones went to California with his family.
2. Mr. Jones went to California because he did not like the place in which he lived.
3. Mr. Jones went to California to look for gold.
4. Mr. Jones will find gold in California.

GROUP A AND GROUP B

This is about two groups of people, Group A and Group B.

Group A hunt and fish to get food. They often have to move because the herds of animals move from place to place.

Most of Group B are farmers. However, many of them make simple tools. The toolmakers trade the tools to the farmers in exchange for food.

161. Group B are more likely to build schools for their children than Group A.

162. Group A and Group B live in Africa.

163. Group B have machinery.

EASTLAND AND WESTLAND

Two countries, Eastland and Westland, are next to each other. The people of Eastland have developed modern industry. They are well educated. There are colleges that train doctors, lawyers, engineers, and business men. The people who live in Westland lead more simple lives. Mostly they work on their farms. Some of them make baskets and jewelry. Their goods and farm products are traded to the Eastlands in exchange for manufactured items. There is a valley near Eastland and Westland. People from Eastland and Westland are going to live together in this valley.

164. The Westlanders in the valley will become more like the Eastlanders, but the Eastlanders will not become like the Westlanders.

165. The Eastlanders and the Westlanders speak the same language.

166. The Eastlanders and the Westlanders live together in the valley because all of their land has been used up.

MR. ANDERSON'S GROCERY STORE

Mr. Anderson owns a grocery store. Often, in the last few weeks, he has not had enough bread for his customers. It has been an unusually dry season in the area and the wheat crop has not done well this year.

167. The delivery trucks have broken down so Mr. Anderson is unable to get bread.

168. There was as much rainfall this year as last year.

169. The bakers have been very busy this year.

170. Mr. Anderson will start baking his own bread.

171. They are using the wheat to make other things this year rather than for making bread.

172. Mr. Anderson will close his store until more bread is baked.

173. The wheat crop was of poor quality.

174. The price of bread is higher this year than last year.

175. More wheat will be harvested this year than last year.

PEOPLE A AND PEOPLE B

People A: The vote had been very close. A number of the representatives did not like the outcome. They decided to go back to their districts and ask the people for support. This was the fourth vote on which the President had been defeated.
People B: The Chief of People B asked his council for advice and then he told his people what he had decided. The people listened to their Chief. When he was through talking, they cheered.

176. People A and People B have the same system of government.

177. The representatives of People A are selected by the President.

178. People A will re-elect the representatives who voted for the bills the President supported.

179. The Chief of People B knew his people would do what he wanted them to do.

180. Most of the representatives of People A agreed on the issue that they had just voted on.

181. People B vote for the members of the council.

MR. EDWARDS' FARM

Mr. Edwards' farm was in the valley. He had just finished planting his seeds. He could see the snow on the mountains. He hoped the snows would not melt too fast. The fire last summer burned most of the trees on the mountainside.

182. More water will flow into the valley this year than last year.

183. Mr. Edwards' seeds will die of frost.

184. Topsoil from the mountain will be washed down into the valley.

185. Mr.Edwards planted his seeds after the snow fell.

186. Mr. Edwards' farm is on the mountainside.

SEAL HARBOR

The city of Seal Harbor is a rapidly growing transportation center. It has been served by planes, railroads, and ocean-going ships. It has just improved the airport and extended the runways so it can serve the largest and fastest jet aircraft.

187. More business and new businesses will be attracted to Seal Harbor.

188. Propeller planes will not be used very much at the Seal Harbor airport.

189. Trade with other cities will be increased.

190. Salaries in Seal Harbor will increase.

HENRY AND TARO

Henry's father is a farmer. Henry is twelve years old. During the week Henry goes to school and he wants to become a teacher. On weekends he works on the farm and has learned to drive a tractor. His father is happy that Henry wants to become a teacher.

Taro is also twelve years old. Taro's father is a hunter. Taro's grandfather also was a hunter. Taro is learning to hunt from his father. Many times on the way home from hunting Taro stops to watch the fisherman. One day Taro asked his father, "Can I become a fisherman?" Taro's father said, "No, because I am a hunter."

191. Henry's father wants Henry to become a farmer.

192. Henry's grandfather was a farmer.

193. Taro will leave the tribe and become a fisherman.

194. Taro's sons will become hunters.

THE PICKER

Three months after the Picker had been invented, more flander had been picked than for all of the year before. All of the machines at the textile mills were working day and night. Six months after the Picker had been put to use, the mills realized that they could not process the amount of flander sent to them.

195. Flander is used in making cloth.

196. The mills will change the way they process flander.

197. Less flander will be grown next year.

MR. KEITH'S LAND

Thiry years ago Mr. Keith bought a thousand acres of farmland. Many new industries have developed in the city nearby. About ten years ago Mr. Keith sold half his farmland to people who build homes. Last year Mr. Keith sold two hundred acres more and many homes have already been built on this land.

198. The people who bought the houses are coming to work on Mr. Keith's farm.

199. Mr. Keith will sell the rest of his farmland to the people building homes.

200. Mr. Keith still owns half of the farmland that he bought thirty years ago.

201. Mr. Keith sold his farmland for more money than he paid for it.

202. They are building houses for the people coming to work in the industries.

203. The people who had worked on Mr. Keith's farm went to work for industry.

204. The people who bought Mr. Keith's farmland were farmers.

BLUE ISLAND

Blue Island has just been discovered in the Pacific Ocean. The natives of this island cannot read or write. Most of them are farmers. Some are fishermen who get fish from the ocean. Several food companies in California want to get the fish from the ocean around the island. These companies will send fishing boats from California and build a cannery on the island. Many people will be needed to work in the cannery.

205. Most of the islanders are fishermen.

206. The islanders will build fishing boats for the people who own the cannery.

207. The islanders will become wealthy from the fishing industry.

208. The natives will be happier because of the cannery.

MR. HARVEY'S SPEECH

Mr. Harvey spoke to the Founders Club last night. Here is part of what he said:

> "In the early days of our country many people settled here from other countries. They came here to establish a way of life that was better than they had in their own countries. They helped build a strong America because they believed in America. Today the foreigners who come here do not seem to appreciate the freedom and opportunity America offers them. We ought to be more careful about who we let in and require a promise of these foreigners before we accept them."

209. Mr. Harvey feels that people who make a promise can be trusted.

210. Mr. Harvey had studied a great deal about America.

211. Mr. Harvey is running for political office.

THE ROMEROS

Mr. and Mrs. Romero remembered the day they landed at the airport in Miami, Florida. They had been married only two months when they arrived from Cuba. America was a strange land to them. Mr. Romero worked hard for many years so his children could go to school. Juan, the oldest child, is now in college and will one day become a lawyer.

212. The Romeros came to America last year.

213. Juan is proud of his father.

214. The Romeros will return to Cuba to live.

VOTING

This is the year we vote for president! The people who would like to be president have tried to explain why we should vote for them. Phyllis Brown, who just turned eighteen, will have her first chance to vote.

215. Phyllis Brown will vote.

216. The election will take place this year.

217. It is important to vote because those elected represent us.

218. Phyllis Brown must be twenty-one (21) years old in order to vote.

219. Information about the candidates has been provided to the voters.

MR. O's CONSTRUCTION COMPANY

Mr. O has a large construction company in a very big city. He has been in the construction business for over twenty years. His methods of construction are old -- but they work.

Mr. O's son is a recent college graduate. In college he learned new and shorter methods of construction. He wants to take over his father's business.

220. Mr. O's son will take over the business.

221. The son's methods of construction are better than the father's methods of construction.

222. Mr. O learned the construction business from his father.

223. Mr. O has many men working for him.

224. The son worked for his father before going to college.

SOCIAL STUDIES TEACHERS

Social Studies teachers help students to learn about people and how these people get along with each other. Many different books are used to explain some important problems we face. Some examples of problems would be pollution, energy crisis, and overpopulation. Social Studies teachers use pictures, movies, field trips, slides, tape recordings, records and documents to help students understand about man.

225. Students like social studies.

226. Learning about people is important.

227. Unemployment (people not working) is another problem we need to discuss in social studies classes.

228. Social Studies teachers like to learn about man.

229. All we talk about in social studies classes are man's unsolved problems.

APPLICATION OF PRINCIPLES TEST

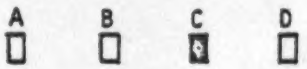
Developed by Hilda Taba - 1966
Modified by Kenneth Wulff - 1976

Explanation to students:

This booklet has some stories. After each story there is an incomplete sentence. Below this sentence there are four reasons which can be used to complete the sentence. First, I will read the incomplete sentence and the four reasons and you are to decide which reason is the best one that completes the sentence. After you have decided which reason is best, pick the reason you think is next best.

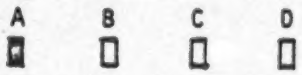
You are to mark your answer on the separate answer sheet.

To show the reason you like best, mark in one of the boxes, A, B, C, or D next to "1st", like this:



In this example, "C" was marked next to "1st" because it was selected as the best reason:

To show the reason you like second best, mark in one of the boxes, A, B, C, or D next to "2nd", like this:



In this example, "C" was selected as the first choice, and "A" was selected as the second choice.

DAVID

David lives in California. His father is a farmer. David's father did not go to college. When David was a little boy he worked on the farm and his father taught him how to drive a tractor. David could do everything on the farm very well. David wanted to become a teacher. David's father was very happy when David went to college to learn how to be a teacher. David now teaches the sixth grade in a big school in New York City.

1. & 2. It was possible for David to become a teacher

A. because in this country a person can choose to learn the kind of work he is interested in.

B. because in this country you need teachers to teach farmers how to use machinery.

C. because in this country people do not have to have the same occupations as their fathers have.

D. because in this country anyone who works hard can become anything he wants.

3. & 4. David's father wanted David to go to college and learn to be a teacher

A. because in this country there are not as many small farms as there used to be.

B. because people who have not gone to college want their children to go to college.

C. because in this country a college education is important.

D. because people who teach are more important to a country than people who farm.

THE PEOPLE OF COLOMBO
and
THE PEOPLE OF HARMAN

The people who live in the country of Colombo have always gotten their food by hunting and fishing. The people lived quietly and peacefully and had very few visitors from other countries. One day someone discovered that there was iron ore in the mountains. The people did not know how to get the iron ore out of the mountains and they did not have machinery. The people in nearby Harman country head about the new discovery in Colombo. They brought in engineers and equipment to get the iron ore out of the mountains of Colombo.

5. & 6. After the people of Harman came to Colombo the Colombo people learned how to do many things

A. because people from one country can learn ideas and skills from people of another country.

B. because the use of metals is important in developing a country's resources.

C. because when skilled people and machinery come into a country they cause changes.

D. because new ways of doing things are better than old ways.

7. & 8. The mining of ore has become Colombo's main occupation

A. because people who have hunted all of their lives want to learn how to do the new things.

B. because the development of a country's resources will allow them to buy many things they need.

C. because using natural resources requires a great deal of knowledge.

D. because the discovery of natural resources brings about changes in a people's way of life.

PAMBO AND TOM

Pambo is twelve years old. There are no schools where Pambo lives. He does not read or write. He fishes with his father every day. Pambo is learning to make canoes from tree bark. His father teaches him many things and is proud of how well Pambo can do them.
Tom is also twelve years old. He works hard at school and gets good grades.
When he comes home from school he reads his books so that he will learn things that will help him.
One day Pambo and his family moved to the city where Tom lives. Pambo and Tom became good friends.

9. & 10. Tom helps Pambo to learn to read but Pambo does not teach Tom how to build canoes.

A. because certain things that are important in some cultures are not important in others.

B. because people of modern cultures tend to teach the people of primitive cultures instead of learning from them.

C. because a newcomer to a culture has difficulty in learning the ways of that culture.

D. because people who come from primitive cultures are not as smart as people living in modern cultures.

11. & 12. Pambo's father will have a hard time finding a job

A. because people from primitive cultures cannot learn the skills necessary to do jobs in modern cultures.

B. because canoes are used very little in modern culture as they have faster forms of transportion.

C. because skills that are highly needed in one culture may not be needed in another culture.

D. because older people have a harder time finding jobs than do younger people.

MR. JONES

Mr. Jones and his family had always lived in a small town in the eastern United States. Mr. Jones was a clerk in a small grocery store. Then a large supermarket chain store bought the store and Mr. Jones was out of work. More and more people now buy from supermarkets. Mr. Jones and his family moved to a big city to look for a job.

13. & 14. Moving to a big city was a wise move for Mr. Jones

A. because people who move to cities usually do not have difficulty in finding jobs.

B. because in cities you can find new ways to use skills that you have.

C. because in cities newcomers can meet many people and make new friends.

D. because in cities there are many jobs needing skills like those of a grocery clerk.

15. & 16. Mr. Jones may have a hard time finding a job in the city

A. because it is not easy to find your way around in a big city.

B. because skills that may be useful at one time may not be needed at a later time.

C. because people who have lived in small towns all of their lives usually do not know how to do many things.

D. because today more businesses are operated by large companies rather than by individuals.

THE MACHINE COMPANY

There are 100 people employed by a machine company. Here are four of them and their jobs.

Mr. Winston's job is to pour melted steel into a mold which makes parts for a machine.

Mrs. Smith's job is to make holes in the machine part.

Mr. Adam's job is to put the wheels on the frame.

Mr. Thomas' job is to paint the machine.

17. & 18. Each person has a different job in this factory

A. because each job in the factory depends upon the work of others.

B. because it is easier to train or replace a person who does just one thing.

C. because one person cannot be skilled in more than one job.

D. because each person can produce more if they have fewer skills to perform.

19. & 20. The company can make more money

A. because, by giving each person a different job, each person can work at his/her own speed.

B. because, by giving each person a different job, the same number of people can produce more in less time.

C. because, by giving each person a different job, the company can pay less to the people who have unskilled jobs.

D. because, by giving each person a different job, all people are working at the same time.

FARMER JIM AND FARMER TOM

Farmer Jim lived a long time ago. He raised food for his family, chopped trees to build his own farm house, and had his own horse to pull his plow. He rode his horse to Georgetown once a month to get supplies.

Farmer Tom, who has a farm today, hired carpenters to build his farm house. He has a machine to cut wheat which he sells to other people to make flour. He owns a truck which he drives to Georgetown every week.

21. & 22. Farmer Tom did not build his farm house himself

A. because today people are hired to do jobs for which they are highly trained.

B. because today farmers do not know how to build houses.

C. because many years ago farmers were able to get their own wood from the forests.

D. because today house-building requires a number of skills.

23. & 24. Farmer Tom goes to town more often than Farmer Jim did

A. because modern farmers cannot make all of the things that they need to run their farms.

B. because today farmers replace their machines often.

C. because modern farmers depend on what the city provides.

D. because modern farmers must get their farm products to market faster than they used to.

MONA COUNTRY

The people who live in Mona country have always been farmers. The land is very good for raising cotton and almost all of it is cotton fields. There are large plantations in Mona Country. Most of the workers work in the cotton fields. There is poor transportation in and out of Mona country because it is cut off from the sea by a high range of mountains. Almost all of the cotton is carried out by small trucks that can go over the mountains to the seaport.

25. & 26. The people in Mona country probably have a low standard of living

A. because most of the people in a one-crop country do the same kind of work.

B. because, in one crop countries, all of the people make about the same amount of money.

C. because it is harder to improve things in a one-crop country than in one that has a lot of resources.

D. because, in one-crop countries, large land owners do not want to change the way the people live.

27. & 28. If Mona country decides to improve its standard of living, it will have problems

A. because the fewer the resources a country has, the harder it is to improve the standard of living.

B. because it takes a lot of money and no-one can make very much money raising cotton.

C. because it is hard to make improvements in a one-crop country.

D. because rich land owners travel a great deal and leave managers in charge of their land.

29. & 30. Mona country is offered aid from another country which wants to help Mona to develop its mineral resources. This aid is going to cause problems in Mona country

A. because, in a one-crop country, the owners of the farms will not want the people to leave the farms to work in the mines.

B. because people who have always lived in the same way will probably not want to change quickly.

C. because people who have always worked in the cotton fields will not be able tolearn how to do anything else.

D. because it takes a lot of machinery to develop mineral resources.

31. & 32. If Mona country does begin to develop industries, they will have more people living in cities

A. because the people can earn more money working for industry.

B. because the farmers will be able to drive from their homes in the cities to their farms.

C. because cities usually develop where there are industries.

D. because the skills of farmers can easily be used in industry.

OHIO AND IOWA

Many people who live in the state of Ohio work in industries. Ohio is a big, busy state. Many of the people who work in Ohio industries start working after finishing high school.

Many people who live in the state of Iowa work in farming. Iowa is a food producing state. Many of the people who work producing food start working while still in school.

33. & 34. Many people in the State of Ohio work in industries

A. because in this country people who work in industries are happier than people who work on farms.

B. because of the ready supply of raw materials and people.

C. because there are many schools to attend.

D. because there is more opportunity to work in an industry than on a farm.

35. & 36. Farming has become important in Iowa

A. because there are few factories.

B. because older people are good citizens.

C. because of the availability of rich, fertile farm land.

D. because of the development of cities.

MAINE

Maine has a population of 1,000. The small, quiet village is located near a large city. Recently builders started construction of apartments and homes in Maine.

37. & 38. Industry will develop in Maine because

A.	more people work in industries today.
B.	as a town increases in population there is usually an increase in industry.
C.	business in the area will cause high prices.
D.	there will be more demand for industrial products.